

# hi ed: Design and Evaluation of a Digital Peer-Support Platform for Eating Disorder Recovery

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#### **Abstract**

Eating disorder recovery is ridden with shame, stigma, isolation and limited access to real-time support. While mutual aid fellowships like Anorexics and Bulimics Anonymous provide community-based recovery pathways, their digital presence remains underdeveloped. This project explores how ABA's principles may be purposefully reimagined as an online format that maintains its fundamental anonymity and community benefits.

The project aim was to design an ABA-inspired mobile application that centres on three key pillars: asynchronous sharing in virtual "rooms," instant peer messaging during emotional distress and access to curated recovery resources. The design process followed a human-centred methodology, beginning with formative interviews with recovering individuals and eating disorder professionals. Insight-informed design requirements and stakeholder collaboration directed the design of a high-fidelity static prototype. The concept was then evaluated through structured expert interviews and scenario-based walkthroughs.

The resulting concept, *hi ed*, includes anonymised sharing, a peer matching crisis support system, peer-to-peer learning and a tailored resource library. Feedback from stakeholders affirmed the fidelity to ABA rituals and the app's potential to complement in-person support.

hi ed acts as a valuable case study of an effective digital format that can be generalised to other 12-step fellowships. Crucially, hi ed illustrates how ethically grounded, low-cost digital interventions can bridge critical support gaps in mental health care. Its broader impact lies in demonstrating how technology can enhance traditional models in sensitive domains, ultimately achieving true recovery.

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# Glossary

Term	Definition
ABA (Anorexics and Bulimics Anonymous)	A peer-led, 12-step fellowship supporting individuals in recovery from anorexia, bulimia, binge eating disorder, and other disordered eating behaviours. Inspired by Alcoholics Anonymous (AA), it focuses on spiritual growth, mutual support, and abstinence from harmful behaviours.
Shares	Personal reflections spoken aloud in meetings, typically related to one's recovery journey, feelings, or experiences with the ABA steps. Shares are central to community building and emotional processing within ABA.
Meetings	Structured gatherings (in-person or virtual) where ABA members come together to read literature, share experiences, and support one another in recovery. Meetings follow a consistent, peer-led format.
The Rooms	Informal term used within ABA and other fellowships to refer to the collective meeting space, physical or virtual, where members gather. Symbolises safety, connection, and mutual support.
The Steps (12 Steps)	A series of guiding spiritual principles used in ABA and other 12- step programs. These steps outline a process of personal growth, surrender, restitution, and service as a path to recovery.
Fellows	A respectful, informal term used by members to refer to each other within ABA and related fellowships. It underscores the equality and mutual support ethos of the program.
Literature	Official ABA-approved written materials, particularly textbooks, which provide guidance on the steps, recovery tools, and member stories. Often read during meetings or used individually

#### 1 Introduction

Eating disorders are a significant and growing public health concern in modern societies. In the United Kingdom alone, over 2% of adults experience a clinically diagnosable eating disorder in any given year (Beat, 2022). Crucially, epidemiological studies suggest that up to half of all cases go undiagnosed or untreated, meaning these figures likely underrepresent the true scale of the problem (NHS Digital, 2020). Eating disorders carry among the highest mortality rates of all psychiatric disorders, with anorexia nervosa having a standardized mortality ratio of 5.86 (Arcelus et al., 2011). These figures underscore the growing need for an accessible, cost-effective support mechanism, particularly given that only half of those with eating disorders ever receive formal treatment (NHS Digital, 2020).

Despite the serious physical and psychological consequences of eating disorders, recovery is often impeded by structural, personal, and socio-cultural barriers:

- While evidence-based treatments (including psychotherapy, inpatient care and support
  groups) exist, many individuals undertake the long and non-linear path to recovery
  without consistent support. Timely and appropriate treatment is difficult to secure due
  to limited access to specialist services, long waiting lists and high costs (BEAT, 2022).
- Many individuals experience stigma, shame and fear around pursuing recovery, resulting in delays in and disengagement from treatment (Williams et al., 2021).
- Diagnostic gatekeeping and weight bias contribute to the under-recognition of eating disorders in individuals who do not meet stereotypical presentations, particularly those in larger bodies (Kuzban et al., 2021).
- Co-occurring mental health conditions and a lack of continuity in care services further complicate recovery processes.

These barriers highlight the need for more inclusive, accessible, and psychologically attuned interventions to support sustained recovery.

Peer-led mutual support groups, notably Anorexics and Bulimics Anonymous (ABA), offer an alternative or complementary form of support grounded in shared experience, accountability, and structured recovery practices. However, these spaces can be difficult to access due to time constraints, geographic limitations and the emotional vulnerability required to participate in a group setting. Digital technologies offer the potential to extend access to such peer support, yet few solutions have been designed specifically around the dynamics of peer support programmes like ABA.

This project investigates how the core tenets of peer-led recovery could be effectively recreated in an anonymous, accessible mobile environment. A human-centred design approach is used to explore how individuals in recovery might engage with daily peer support, share reflections, and seek help in moments of vulnerability. Fundamentally, this project aims to design a digital concept that addresses key barriers to eating disorder recovery by providing inclusive, accessible, and community-driven peer support.

This work is situated within the broader question of how technology can support low-barrier, emotionally-attuned interventions for hidden and highly stigmatised mental health conditions. It reflects an ambition not to just digitise therapy or replace human support, but rather to offer connection and continuity throughout the isolating and nonlinear recovery journey.

### 2 Literature Review & Contextual Investigation

### 2.1 Eating Disorder Recovery

Eating disorder recovery is a multifaceted and contested concept within clinical literature. While early interventions focused on weight restoration and symptom reduction, more recent approaches acknowledge that recovery encompasses psychological, behavioural, and identity-level change (Bardone-Cone et al., 2010; Noordenbos & Seubring, 2006). Individuals in recovery often describe it not as a fixed destination, but as an ongoing and non-linear process involving relapse, reflection, and gradual reconnection with the self (Keski-Rahkonen & Tozzi, 2005). Critically, recovery involves more than the cessation of disordered behaviours. It necessitates rebuilding self-esteem, emotional regulation, body image, relationships, and a sense of meaning or purpose (Stockford et al., 2022). For many, it requires developing new coping mechanisms, navigating grief around losing the eating disorder identity and learning to engage with uncertainty and vulnerability (Williams et al., 2021).

There is growing consensus that definitions of recovery should be user-led and centred on subjective well-being, not just clinical thresholds (de Vos et al., 2017). However, this broader view is not always reflected in treatment protocols or digital tools, which often prioritise quantifiable over experiential outcomes. As a result, individuals may disengage from recovery efforts when they feel misunderstood, misdiagnosed or reduced to metrics like BMI or calorie intake (Conti et al., 2021).

Thus, eating disorder recovery is a deeply individual journey that cannot be universally defined or externally imposed. Effective interventions must acknowledge its complexity and provide support that is flexible, relational and empathy driven.

### 2.2 Current Clinical and Digital Interventions

Eating disorder treatment has traditionally relied on in-person, therapist-led models such as Cognitive Behavioural Therapy and Dialectical Behavioural Therapy. These approaches are often effective when accessed early and delivered consistently by trained professionals. However, access to these treatments is limited by long waitlists, geographic availability, cost and systemic underfunding of mental health services (Beat, 2023). Many individuals do not receive support until their disorder becomes severe, by when recovery is more challenging, and treatment outcomes are less favourable.

Digital interventions have emerged as a partial solution to address these access barriers. A growing number of mobile apps and online platforms, such as *Recovery Record*, *Rise Up*, and *Larkr*, attempt to support users through mood tracking, food logging, CBT-based prompts, and journaling. While these tools offer convenience and discretion, reviews note that they are often poorly integrated into professional care pathways and lack clinical validation (Tregarthen et al., 2015; Bardone-Cone et al., 2022). Many apps are also limited by their reliance on self-tracking and cognitive models, which can feel reductive or even triggering for users who are already preoccupied with control, numbers, and perfectionism (Fairburn & Cooper, 2011).

Thus, clinical and digital interventions fall short in effectively blending psychological rigour, flexibility, accessibility, continuity and connection. These interventions insufficiently account for the complexity of eating disorder recovery, which often spans years and requires sustained, emotionally attuned support (Rich, 2006; Dawson et al., 2023). This reveals a critical gap: the absence of emotionally resonant, digital interventions that prioritised lived experience and long-term recovery. The challenge and opportunity lie in designing tools that avoid the sterile

feel of compliance-focussed interventions, while still offering psychologically grounded guidance.

### 2.3 Anorexics and Bulimics Anonymous (ABA)

Anorexics and Bulimics Anonymous (ABA) is a peer-led recovery fellowship based on the 12-step model first developed by Alcoholics Anonymous. ABA adapts this framework specifically to the context of eating disorders, offering participants a spiritually grounded path to recovery through meetings, sponsorship, and personal reflection (ABA, 2024). At the core of ABA is the belief that eating disorder recovery requires surrender and ongoing engagement with the fellowship community.

ABA is structures around meetings, where participants share lived experiences, offer mutual support and work through the steps in a communal environment. Many individuals report finding comfort in this non-clinical, lived-experience approach, particularly those who feel disillusioned by medicalised or weight-focused treatment (Kosmerly et al., 2015).

However, intrinsic barriers limit the ability of ABA to holistically support all individuals through the complex recovery process. While ABA has adopted digital meetings, these are relatively infrequent and follow fixed schedules. The requirement to attend live, synchronous session, whether in person or online, can be particularly challenging for individuals experiencing social anxiety or ambivalence about recovery. The day-to-day realities of those in recovery involves irregular routines, emotional volatility, and fluctuating motivation. Thus, the episodic nature of meetings can fall short in supporting the continuous emotional and cognitive demands of eating disorder recovery. The strict programme, though fundamental to the approach, limits the opportunity for more tailored, responsive support.

Despite these challenges, ABA fills an important niche in the recovery landscape. It offers long-term, community-based support for those seeking connection, meaning, and accountability outside of formal therapy. Its enduring appeal points to a desire for emotionally resonant, non-institutional approaches to healing. As such, ABA represents a valuable case study in how peer-led models can complement, and in some cases substitute for, more traditional interventions. This is especially relevant given that professional services are currently often inaccessible, inadequate or invalidating. The identified limitations point to an opportunity for more flexible, frequent, and user-centred tools that can complement existing peer support frameworks like ABA.

### 2.4 Digital Mental Health Tools

There has been a significant shift in mental health support is access and delivery over the past decade, with digital mental health interventions (DMHIs) emerging as a promising complement or alternative to traditional in-person care. A growing body of evidence supports the efficacy of DMHIs across various mental health domains. Randomised controlled trials and meta-analyses have demonstrated that digital interventions can produce outcomes comparable to face-to-face therapy, particularly when grounded in evidence-based frameworks and paired with some degree of human support (Andersson et al., 2014; Linardon et al., 2019). Specifically in the context of eating disorders, digital tools have shown the potential to improve accessibility and continuity of care. Interventions such as guided self-help platforms and app-based cognitive restructuring have demonstrated moderate efficacy in reducing binge eating, restrictive behaviours, and body image concerns (Loucas et al., 2014; Linardon, 2020). These tools are particularly useful where access to specialist care is limited and among individuals who face psychological or logistical barriers to seeking help through conventional means.

Moreover, digital interventions can offer users a greater sense of privacy, autonomy and control, particularly given the stigma and secrecy associated with disordered eating. However, the literature also highlights significant limitations. The effectiveness of DMHIs is highly dependent on user engagement, which can be inconsistent without a human support component. Additionally, concerns remain about data privacy, digital literacy and the potential for triggering content when interventions are not carefully designed. Many digital tools lack rigorous clinical validation or are developed without meaningful user involvement, which can limit both their relevance and effectiveness (Hollis et al., 2015). Nuanced, adaptive solutions are critical in the case of eating disorders, where recovery is emotionally complex. Despite these challenges, the digital mental health space continues to grow rapidly. The COVID-19 pandemic further accelerated the adoption of digital interventions, leading to an influx of innovation and funding in this area. With this momentum comes an opportunity to rethink how support can be delivered more flexibly, inclusively and proactively. Current literature calls for hybrid care models that blend the scalability of digital tools with the depth of human connection. This approach may be particularly beneficial for those navigating the longterm, often isolating process of eating disorder recovery.

### 2.5 Gaps & Insights

There is a clear gap between the lived complexity of eating disorder recovery and the tools currently available to support it. Clinical treatments, while evidence-based, are often inaccessible and narrowly focused on symptom cessation. Digital interventions, though promising in their reach and flexibility, tend to rely on self-tracking and cognitive models that may feel disconnected from users' emotional realities. Peer-led communities like ABA offer relational, long-term support rooted in lived experience, but lack the frequency, adaptability, and accessibility that many users require. Across all domains, there is a pressing need for tools that honour the subjective, identity-based dimensions of recovery; tools that are emotionally attuned, flexible in delivery, and designed in collaboration with those they aim to serve. This presents a design opportunity: Digitising the ABA model to overcome access, consistency, and flexibility barriers, while maintaining its distinct benefits. Such an intervention would offer sustained, user-led support that is emotionally resonant, psychologically informed and attuned to the deeply personal nature of recovery

#### 3 User Research

#### 3.1 Research Aims & Methodology

Qualitative user research was conducted to gain insight into how individuals experience eating disorder recovery, particularly in relation to the ABA model. The research was designed to identify unmet needs, perceived value and limitations of existing support systems. The derived insights would then inform the digital intervention design. Semi-structured, conversational interviews were used to encourage participants to openly share their personal recovery journeys and perceptions of existing support options. 12 participants were recruited to cover a range of stakeholder perspectives:

- 1 eating disorder recovery coach
- 1 clinical psychologist specialising in eating disorders
- 2 individuals starting recovery (not ABA)
- 2 individuals starting recovery through ABA
- 2 individuals in recovery through ABA
- 2 individuals recovered through ABA
- 2 recovered individuals (not ABA)

Interview length was dynamically determined based on how the participant engaged with the discussion. Most interviews lasted 45-60 minutes and were conducted either remotely or inperson.

The discussions aimed to solve the following research questions:

- How do experiences of eating disorder recovery differ across stages (early, mid, recovered), and what forms of support are considered most helpful?
- What unmet needs do individuals report during day-to-day journey of recovery, particularly between formal touchpoints like therapy or meetings?
- What are the most valuable aspects of ABA?
- What limitations or challenges do users face in accessing or engaging with ABA?
- From the perspective of professionals, what are the strengths and shortcomings of various current interventions (including ABA)?

Considering the sensitive nature of the topic, strict ethical protocols were followed. Ethics approval was obtained prior to data collection. All interviews were conducted in line with best practice for working with vulnerable populations and help resources were provided if they were needed post-interview. Participants were fully informed of the purpose of the research and participation was entirely voluntary. To uphold confidentiality and psychological safety, interviews were not recorded, and no direct quotations were retained. Instead, anonymised, paraphrased notes were taken in real-time and immediately post-interview.

### 3.2 Key Themes & Insights

Affinity mapping was used to synthesise the qualitative data and identify reoccurring themes across responses (see Figure 1).

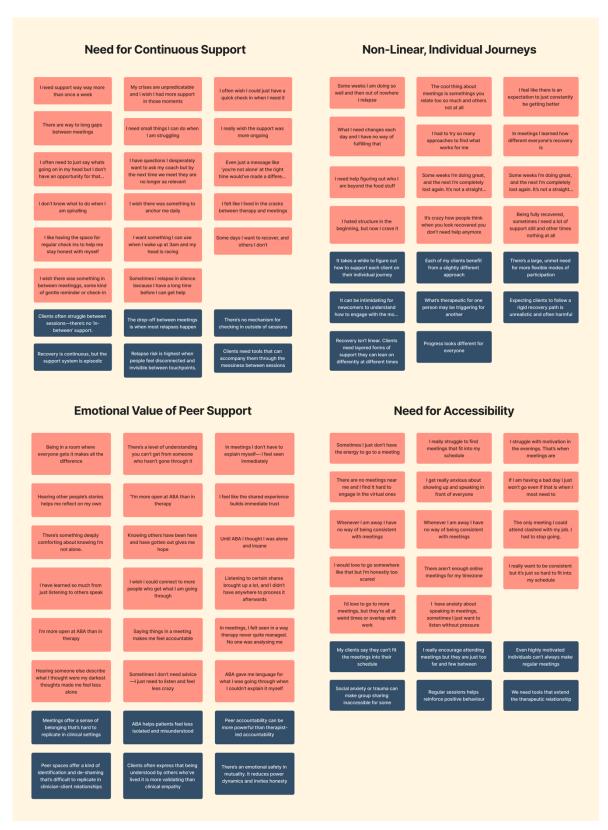


Figure 1: User Research Affinity Map

This process revealed four significant themes, which were then condensed into key insights:

- Peer support creates unique emotional safety and belonging: Being in the presence of others with shared experiences fosters a deep sense of understanding, trust, and relief that traditional clinical environments cannot match. Participants emphasised the non-judgemental, understanding and accepting nature of peer spaces. This emotional resonance builds immediate trust, encourages openness and fosters connection even in moments of shame or relapse.
- Limited accessibility to support disrupts engagement: Despite the benefits of peerled spaces like ABA, access is hindered by logistical, geographical and emotional barriers. Many individuals struggle to find meetings that align with their routines, time zones or comfort levels. Consequently, engagement becomes inconsistent and sometimes even impossible.
- Recovery requires responsive, ongoing support: The episodic nature of current interventions contradicts the unpredictable, moment-to-moment demands of recovery. Individuals described being most vulnerable in the long gaps between meetings or appointments, when no limited help is available. There is a pressing need for tools that can offer available, low-barrier interventions to bridge these gaps.
- Support must reflect the non-linear and individual nature of recovery: Participants emphasised that no single approach works for everyone and that their recovery needs change daily. A standardised model risks excluding those whose journeys don't follow a linear progression. Effective interventions must be flexible, individualised and non-prescriptive, allowing users to opt in at their own pace.

### 3.3 Derived Requirements & Refined Objectives

Requirements were derived from the key insights to inform the intervention design. These requirements aim to address the gaps identified within existing peer support and traditional care frameworks.

- 1 Facilitate emotional safety and connection
  - a. Features should replicate the emotional resonance and sense of belonging fostered in ABA
  - b. Support mechanisms should be grounded in lived experience to build trust and psychological safety
  - c. Hiding and reporting harmful content should be facilitated
- 2 Enhance accessibility and flexibility
  - a. The format must accommodate varying schedules, geographies and energy levels
  - b. Asynchronous modes of interaction and on-demand access to content should be provided
  - c. Opportunities for passive participation should be included to lower the threshold for engagement
- 3 Ensure continuous, on-demand support
  - a. Spontaneous interactions should be facilitated to support users in moments of distress or uncertainty
  - b. Support for crisis moments should be provided
- 4 Adapt to non-linear and individual recovery paths
  - a. Format should allow for personalisation of both content and pace
  - b. Modular components should be offered so users can access the type of support they need when they need it

Based on these requirements, the project objectives were refined:

- Digitise key components of the ABA model in a way that preserves its emotional and relational value while overcoming accessibility and consistency limitations
- Create a responsive, digital tool that supports users in real-time, offering a more continuous and scalable form of care
- Design for flexibility, enabling personalisation based on the user's fluctuating needs, stages of recovery, and comfort levels with peer engagement
- Strengthen peer connection without relying on synchronous or in-person formats

### **4 Design Process**

#### 4.1 Design Methodology & Rationale

This project followed a human-centred design methodology, placing user experience at the core of the design process. Given the sensitive and deeply personal nature of eating disorder recovery, this approach allowed the users' emotional, psychological and contextual needs to be prioritised. By embedding user voices into the design process, a solution that feels specific, safe and resonant could be created. Moreover, the use of human-centred design aligns with best practice for designing mental health interventions (Yock et al., 2016; IDEO, 2015).

The design process followed an iterative cycle of research, ideation, prototyping and validation. Each stage was informed by input from recovering individuals and professionals in the field. The user interview insights and resulting requirements shaped initial concepts, which were iteratively refined through feedback loops.

To extend the principles of human-centred design, a co-design approach was also employed. The design process was undertaken in collaboration with an eating disorder recovery coach, who themselves recovered from an eating disorder (identity requested to be kept anonymous).

Key elements of the co-design process included:

- Collaborative ideation sessions: These sessions focussed on exploring the research insights to generate ideas for desirable features, tone and modes of interaction.
- Feedback sessions: These sessions involved showing early prototypes to obtain feedback. The feedback helped shape key decisions around functionality, key features, structure and language.

The co-design process contributed to the authenticity, effectiveness and value of the final design.

### 4.2 User Journey Mapping

User journey mapping was used to visualise the emotional and practical landscape of recovery as experienced by individuals in recovery (Figure 2). This process helped identify critical moments of support, disconnection and unmet needs throughout the unpredictable recovery journey. Given the non-linear, highly individualised nature of recovery, a single user journey could not capture all experiences. Instead, a simplified snapshot of the journey was developed based on commonalities among the various user interviews. The identified opportunities were used to inform the app feature design process.

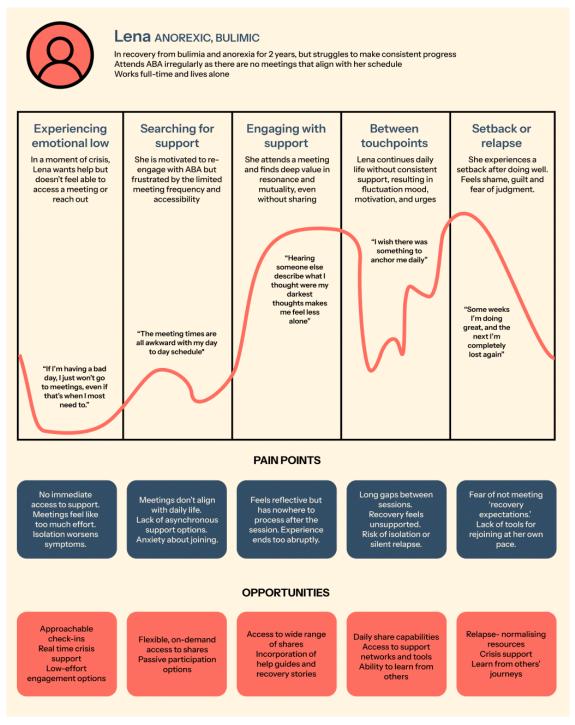


Figure 2: User Journey Map

### 4.3 Feature Development

The app features were designed through within the collaborative ideation sessions, guided by the user insights and requirements. Each core requirement informed distinct product features (see Table 1), ensuring that the app effectively addresses the emotional, practical, and behavioural realities of recovery.

Table 1: Requirement-informed Features

Requirement	Sub-requirement	Feature Implementation						
	Replicate the emotional resonance and sense of belonging fostered in ABA	The Rooms: a space where users anonymously post personal reflections, inspired by the shares from ABA meetings						
Facilitate emotional safety and connection	Ground support in lived experience to build trust and psychological safety	<b>Forum:</b> a space where users can ask and answer questions, sharing their experience and learn from others						
	Facilitate hiding/reporting harmful content	Safety controls: users can report harmful content and community guidelines support emotional safety						
Enhance accessibility and	Accommodate varying schedules, geographies, and energy levels	Asynchronous features: "The Rooms" and forum allow users to engage at any time, without needing to attend a live meeting. Shares can either be posted publicly, shared privately or discarded						
flexibility	Provide on-demand access to content	<b>Resources:</b> curated space of relevant help that can be visited any time						
	Include passive participation options	The Rooms: users can browse shares and discussions without posting						
Ensure	Facilitate spontaneous interactions in moments of distress	The Rooms, Forum, and Resources: user can engage in peer reflections or supportive content whenever needed						
continuous, on- demand support	Support crisis moments with more immediate connection	Crisis Support: emergency support functionality offering instant access to personal peer support during moments of acute distress						
Adapt to Non- linear and	Allow for personalisation of content and pace	Multi-feature Ecosystem: combination of Rooms, forum and resources supports a						
individual recovery paths	Offer modular components for different needs	range of engagement modes and intensities- users can choose what to use, when						

### **4.4 Iterative Refinements**

Early prototypes were made based on the features developed in the collaborative ideation sessions (see appendix A). These were reviewed over three co-design feedback session with the recovery coach. This collaborator brought a valuable dual perspective, with both professional insight and deep personal knowledge of the lived experience. The feedback directly informed several meaningful design refinements (see Table 2).

Table 2: Feedback-informed Refinements

Feedback / Insight	Design Refinement	Rationale
Some days users would benefit from sharing several times	Users can submit as many shares as they like (click "new share" from the rooms) instead of being limited to one a day	Mirrors the emotional pacing of recovery: thoughts and emotions can be rapid, repetitive, and inconsistent
One-to-one peer connection is what makes people feel safest, especially when group settings are overwhelming. Mimics the convention of exchanging numbers in meetings	Private messaging functionality added	Enables spontaneous peer support and promotes building a strong support network
Some content can be deeply personally triggering while being helpful for others and not necessarily breaching community guidelines	Option added to hide triggering content from one's feed instead of reporting it as harmful to the community	Promotes emotional safety and self-regulation without censoring others' voices
Some users may want more privacy and not want to be messaged by other users	Add setting to opt out of messaging functionality	Acknowledges fluctuating capacity for connection, differing privacy preferences and desire for user agency
The forum could get full fast- need effective ways to find relevant question threads	Search functionality integrated into the forum	Supports accessibility and targeted exploration, helping users find what's most helpful at a given moment
Crisis moments are isolating, and you often don't think clearly	Crisis support button made visible on all screens	Ensures high visibility and fast access to support during emotional emergencies
Education is powerful and relevant eating disorder guidance is difficult to find	Guides and articles added to the Resources section	Provides more avenues for engagement and support

### 4.5 Navigation Design

The app navigation is organised around 5 simple tabs to minimise friction and avoid overwhelm (see table 3 and figure 3). A clear visual hierarchy was built to ensure users know what to expect in each section. The features are displayed such that users can start wherever they feel comfortable. Triggering content can be reported and hidden throughout on all screens showing user-generated content.

Table 3: Core Navigation Structure

Tab	Key Features
The Rooms	Post and browse shares, private message in response to shares
Outreach	Message contacts made in the rooms, forums or crisis support Pin key contacts Search messages
Forum	Ask questions Search for and browse question threads Answer questions posted by other users Message users based on their answers
Resources	Read daily excerpt Read about the step of the month Access guides, literature, meeting lists, recovery podcasts
Profile	Edit profile details (name, identification) View and manage saved shares View and manage asked questions Manage app settings and preferences Access app support

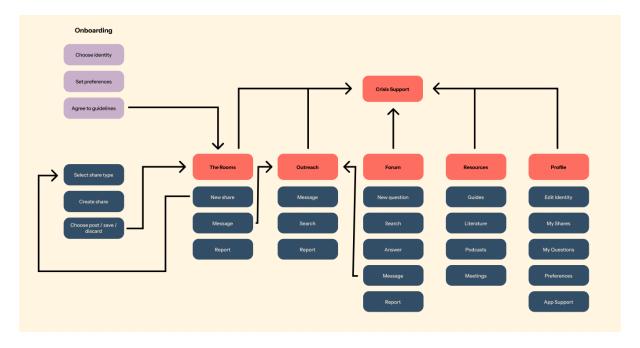


Figure 3: Core Navigation Flowchart

### **5 Results: Static Prototype**

The final design was created as a high-fidelity static prototype developed in Figma. The design captures the intended user experience across all major app sections and interactions, following iterative refinement. A static prototype was intentionally chosen over an interactive one. This decision aligned with the project's focus on exploring and communicating the structural and emotional logic of the app, rather than validating functional or technical implementation. A static prototype allowed for greater control over visual hierarchy, screen-by-screen storytelling, and feedback collection.

### 5.1 Branding

The name *hi ed* speaks directly to the app's core purpose: confronting the eating disorder ("Ed") while offering a supportive space to reframe the relationship with it. The name is intentionally both ambiguous and conversational, reflecting the internal dialogues many users experience in recovery.

The visual identity was selected to balance approachability with emotional gravity:

- Dark Blue (#334E68) conveys calm, stability, and trust
- Cream (#FFF5E1) softens the interface and supports readability
- Coral (#FF6F61) provides a subtle accent, signalling energy and positive action

This colour palette was selected in response to feedback from participants who described many mental health interfaces as either too clinical or too juvenile. The *hi ed* palette aims to create a neutral, emotionally safe space that feels adult and intentional. Typography and spacing were designed for legibility, particularly for users navigating the fatigue, anxiety or low concentration often experienced during recovery. Interaction elements are deliberately minimal, with clear affordances and no unnecessary animations.

### 5.2 Onboarding

The onboarding process was designed to gently introduce users to *hi ed*, creating a sense of emotional safety and autonomy (see Figure 4).

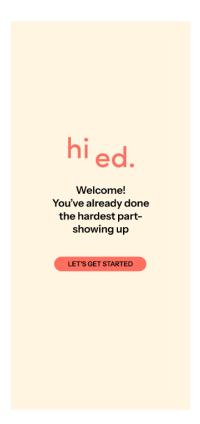








Figure 4: Onboarding Screens

#### 5.3 The rooms

A recreation of the experience of ABA shares, unfiltered and emotionally honest. Shares are displayed in a scrollable feed format and disappear after 24 hours (See Figure 5). Users can write as many shares as they want and hide or report triggering content (See Figure 5). When creating a new share, users can choose to write and voice record (See Figure 6). Once done, they choose whether they want to post, save or discard their share (See Figure 6)

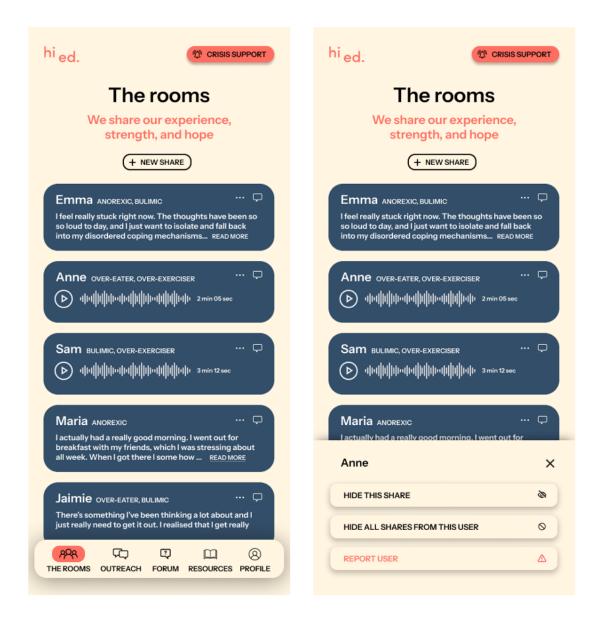
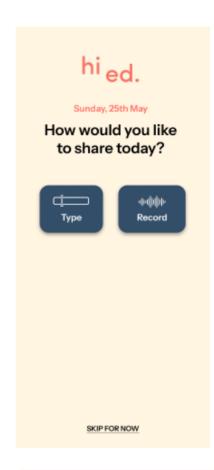
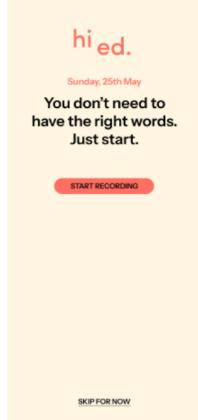


Figure 5: The Rooms







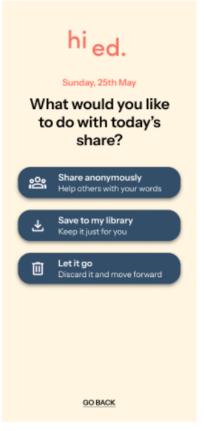


Figure 6: New Share

#### 5.4 Outreach

A platform for peer-to-peer connection and support, allowing users to establish a strong recovery network. Users can search through their messages and pin key contacts (see Figure 7).

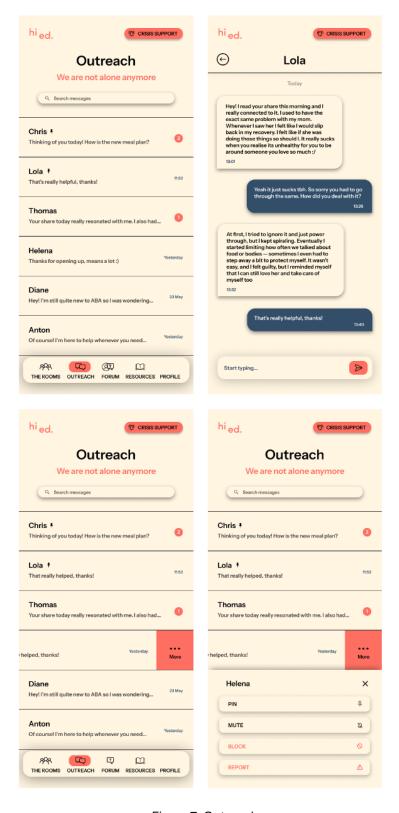


Figure 7: Outreach

#### 5.5 Forum

A structured space for asynchronous discussions, question-asking, and community support. Forum posts are searchable, allowing users to find posts relevant to their experience (see Figure 8).

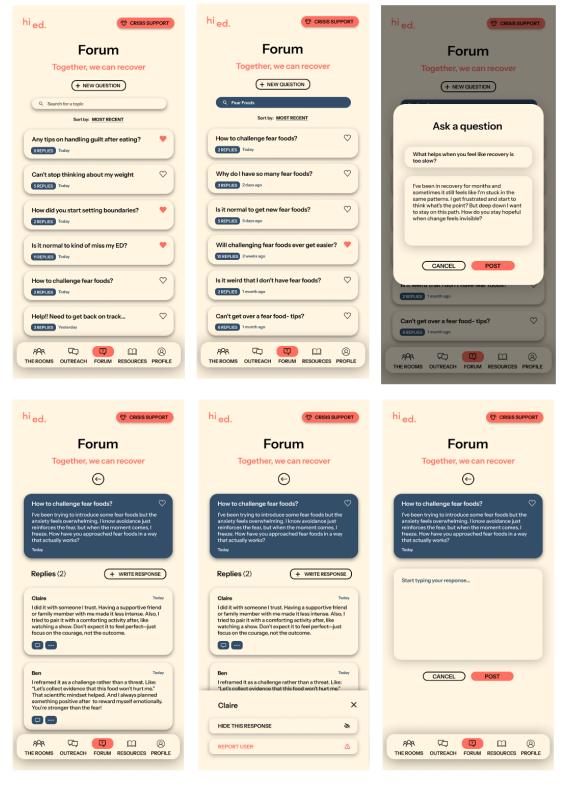


Figure 8: Forum

#### 5.6 Resources

A curated collection of key resources for recovery (see figure 9).

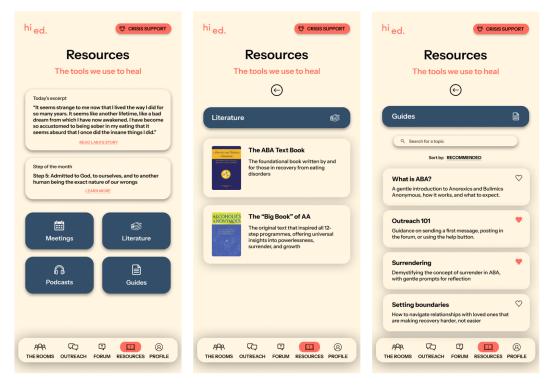


Figure 9: Resources

### 5.7 Profile

A space where users can manage their preferences, as well as their saved shares and questions (see Figure 10)

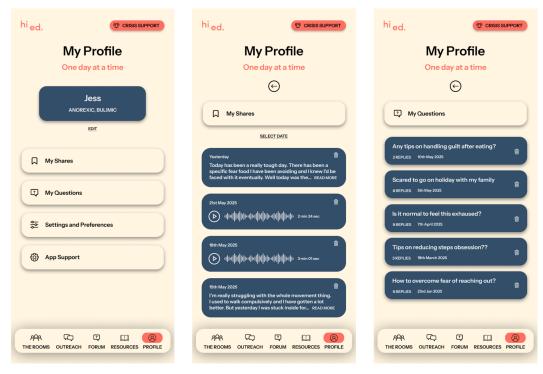


Figure 10: Profile

### **5.8 Crisis Support**

A button visible on every screen, instantly connecting users to an available peer in moments of crisis (see figure 11)

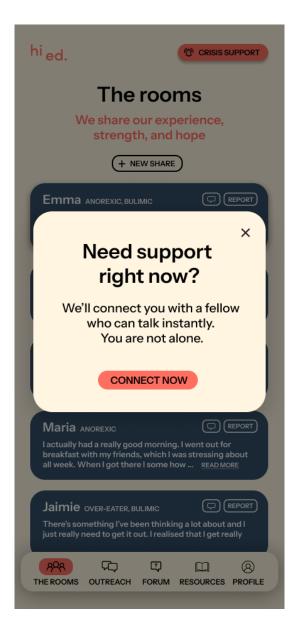


Figure 11: Crisis support pop-up

### 6 Validation via Expert & Scenario-Based Evaluation

#### 6.1 Rationale for Validation Method

This project aimed to achieve conceptual efficacy, specifically whether the proposed app could meaningfully support eating disorder recovery. Assessing this would be out of scope, as it would be achieved by observing individuals using the fully functional app over an extended period. Traditional usability testing would have failed to capture key concerns such as emotional resonance, recovery alignment, and safety. Thus, three validation methods were selected:

- Expert review to evaluate the tool's alignment with clinical best practices
- **Scenario-based walkthroughs** to observe how real users respond emotionally and cognitively to key flows
- Heuristic review to systematically assess the design against recovery-aligned heuristics.

#### 6.2 Validation Methodology

**Expert Review Methodology** 

Participants: a clinical psychologist and an eating disorder recovery

#### Procedure:

- 1 Prototype Walkthrough (30 mins): Participants were guided through key
- 2 Structured Feedback Form: Experts rated the prototype's alignment with the four core project goals—digitising peer support, real-time care, flexible recovery, and asynchronous connection—on a 1–5 scale and provided open comments
- 3 Open Discussion (15 mins): Participants explored perceived strengths, risks, and opportunities for refinement.

#### Scenario-Based Walkthroughs Methodology

Participants: 6 recovering individuals

### Procedure:

1 Scenarios Provided:

Scenario A: First-time using app

**Scenario B:** Triggered by a difficult day

Scenario C: Looking for guidance

2 Guided Walkthrough (30 min): Relevant prototype screens were shown and prompting questions asked

"How do you feel at this moment?"

"Would you trust this option? Why or why not?"

"Is there anything confusing or missing?"

4 Post-scenario questions & open feedback (15 min): Participants answered Likert-based evaluation form

"This flow feels supportive and clear."

"I would use this feature if I were in a difficult moment."

"This page feels aligned with ABA language and practice."

### **Heuristic Evaluation Methodology**

Procedure: The 6 recovery-stage participants applied heuristics (see Table 4) to prototype screens, rating each on 1–5 and providing comments. Scores were aggregate scores heuristic rated ≤3 were highlighted for improvement.

Table 4: Evaluation Heuristics

Heuristic	Description
Anonymity	Preserves identity, reinforces privacy
Crisis clarity	Crisis actions are clear, kind and effective
Daily ritual	Sharing feels authentic and empathetic
ABA language	Terminology aligns with ABA culture
Content sensitivity	Users can hide or report triggering content
Resource appropriateness	Resources feel relevant and well-labelled
Onboarding	Introduces features gently and respectfully

### **6.3 Validation Findings**

The multi-method validation process revealed strong alignment between the *hi ed* concept and the needs of recovering. Across expert insights, scenario walkthrough and heuristic ratings, key strengths and limitations were surfaced.

#### **Expert Review Insights**

Both experts affirmed that *hi* ed reflects core ABA recovery values, especially anonymity, structured peer support, and low-barrier daily rituals. The psychologist praised the "daily share" as a "powerful behavioural anchor," while the recovery coach noted its potential to "foster identity safety for those ambivalent about group meetings."

- Anonymity: Strong alignment with ABA, with use of aliases and stripped-down profiles praised
- Crisis Support: Very powerful feature, one expert questioned how many users will opt in
- Resource Section: Considered sufficient for early recovery, though one expert highlighted the guide articles must be written by professionals
- Daily Share Prompt: Widely validated as a recovery-aligned habit, though one expert noted the risk of overwhelming newer users as it feels too open-ended

### Scenario-Based Walkthrough Results

All six participants responded positively to the concept's tone, flow, and visual simplicity. The platform's emotional impact was described using terms like "gentle", "safe" and "not performative". The Likert scores across all criteria were consistently high (see table 5)

### Scenario A: First-Time User

- 5/6 participants felt that a first-time user could easily navigate through all steps
- 1/6 found the amount of text in the onboarding slightly overwhelming

#### Scenario B: Difficult Day

- 5/6 said they would share when they feel distressed
- 4/6 said they would trust the "Help Now" button in a moment of distress
- 2/6 expressed anxiety about who would respond and how quickly.

### Scenario C: Seeking Guidance

- 4/6 said they believe they would regularly ask questions in the forum
- 5/6 indicated the resources provided would be helpful

Table 5: Scenario Walkthrough Likert Scores

Scenario	Supportiveness	Likelihood of use	ABA alignment
A: First-Time User	4.5	4.7	4.8
B: Difficult Day	4.8	4.4	4.1
C: Seeking Guidance	4.4	4.4	4.5

### **Heuristic Evaluation Results**

Each of the seven recovery-focused heuristics was applied by all six participants. Table 6 summarises average rating and justification.

Table 6: Heuristic Evaluation Results

Heuristic	Avg. Score	Justification
1. Anonymity	4.8	Users appreciated the alias system and flexibility in naming
2. Crisis Clarity	4.2	While "Help Now" was emotionally resonant, uncertainty around follow-up created some discomfort
3. Daily Ritual	5.0	The daily share was seen as "simple, authentic, and habit-forming." Participants noted it mirrored ABA practice well
4. ABA Language	4.7	Use of terms felt familiar and aligned with ABA
5. Content Sensitivity	4.3	Feature to hide/report was appreciated but initially hard to spot
6. Resource Appropriateness	4.5	Resources were well-curated and clear
7. Onboarding Guidance	4.5	Flow felt emotionally gentle, though some of the wording seemed slightly overwhelming

#### 7 Discussion

### 7.1 Evaluation Against Objectives & Requirements

The core objective of this project was to create a digital intervention that supports individuals recovering from eating disorders by reimaging ABA in an accessible, asynchronous format. The concept was guided by anonymity, emotional safety and low-friction daily engagement. Validation suggest that the project achieved these goals, specifically in respect to the defined requirements (see Table 7)

Table 7: Achievement of Design Requirements

Requirement	Sub-requirement	Achievement						
	Replicate the emotional resonance and sense of belonging fostered in ABA	The Rooms mirrors ABA's sharing rituals, fostering a sense of routine, mutual reflection, and peer presence						
Facilitate emotional safety and connection	Ground support in lived experience to build trust and psychological safety	The Forum provides users with a space to share their experience and learn from others. Messaging allows users to connect to and support one another						
	Facilitate hiding/reporting harmful content	Safety controls encourage users to report harmful content and community guidelines support emotional safety						
Enhance	Accommodate varying schedules, geographies, and energy levels	"The Rooms", forum and outreach tabs allow users to engage at any time, without needing to attend a live meeting. Shares can either be posted publicly, shared privately or discarded						
accessibility and flexibility	Provide on-demand access to content	Resources provide a curated space of relevant help that can be visited any time						
	Include passive participation options	Users can browse shares, discussions and support resources without posting, lowering the barrier for engagement during difficult phases.						
Ensure continuous, on-	Facilitate spontaneous interactions in moments of distress	The Rooms, forum, messaging, resources and crisis support provide options to find the resources and support needed for them during difficult moments						
demand support	Support crisis moments with more immediate connection	Crisis support provides instant access to personal peer support during moments of acute distress						
Adapt to Non- linear and individual recovery paths	Allow for personalisation of content and pace	Multi-feature Ecosystem supports a range of engagement modes and intensitiesusers can choose what to use, when						

The validation confirms that the app successfully:

- Preserves ABA's emotional and relational value while, overcoming accessibility and consistency limitations
- Supports users in real-time through its asynchronous format, offering a more continuous and scalable form of care
- Provides the user with flexibility in engagement, affording different modes that cater to fluctuating needs, stages of recovery, and comfort levels with peer engagement
- Strengthens peer connection without relying on synchronous or in-person formats through sharing, messaging and forum interactions

However, the evaluation also surfaced limitations in how these objectives were realised at the prototype stage. Notably, the crisis support feature could not be tested, and some participants voiced uncertainty about how peer responses would function in practice. Similarly, while the

anonymity features were praised, some users questioned if they would build too much of an online identity overtime. Overall, the concept shows strong alignment with its foundational aims. Further technical and logistical development is necessary to ensure that these values translate into consistent lived experience during long-term use.

#### 7.2 Stakeholder Feedback & Alignment

The project benefited from a triangulated feedback process involving two key stakeholder groups: individuals in recovery and eating disorder clinicians. Recovering individuals emphasized how accurately *hi ed* captured their recovery environment. Terms like "rooms," "daily share," and the lack of user profiles contributed to a space that felt authentic and non-performative. This alignment was critical in ensuring that the app did not inadvertently mimic wellness or influencer culture, a growing concern in digital eating disorder communities. Clinicians appreciated the presence of disclaimers, clear limits to the app's role, and integrated links to crisis support. They validated the idea of *hi ed* as a complement, not a replacement, for in-person recovery care. Some suggested that future versions could feature direct integration with licensed services, offering a hybrid between peer and professional support.

#### 7.3 Broader Impact & Limitations

#### Social Impact

hi ed has the potential to significantly reduce feelings of isolation among individuals with eating disorders, particularly among those unable or unwilling to attend in-person meetings. For those in remote locations or navigating stigma, the app offers a discreet, on-demand connection to recovery peers. Its ability to blend emotional validation with practical ritual can help normalise daily recovery engagement in non-clinical contexts.

#### Technological Impact

The project demonstrates how sensitive domains like mental health and addiction recovery can benefit from values-driven prototyping. Rather than relying on AI or gamification, *hi ed* emphasizes minimalism, user intent and carefully scaffolded habits, contrasting with common engagement-maximisation design approaches.

### **Economic Impact**

The design's low infrastructure requirements make it well-suited to nonprofit partnerships, volunteer-led moderation or government-funded health interventions. With no need for algorithmic content delivery or monetization pathways, the platform could remain mission-driven and sustainable through public health grants or donation models.

#### **Limitations**

- Prototype constraints: The current prototype is non-functional. As such, features like peer crisis response and moderation cannot yet be evaluated under real conditions.
- Sample size: The user and expert feedback, while rich in insight, involved a limited sample size. This may not reflect the full diversity of the ED recovery community.
- Safety infrastructure: While designed with emotional safety in mind, features to protect against trolling or pro-ED sabotage will need to be tested thoroughly. Further moderation measures may need to be developed.

### 7.4 Future Evaluation & Implementation Roadmap

To move from concept to intervention, the next steps involve structured development and evaluation:

- **MVP development:** Build a minimally viable version of *hi* ed with all core features. This will allow technical feasibility and user experience to be tested under real usage conditions.
- **Pilot study:** Conduct a 4-week study with 30–50 participants drawn from the ABA community. Use quantitative measures alongside qualitative interviews to assess perceived value, usage frequency and emotional safety
- **Moderation & safety infrastructure:** Develop an admin dashboard to support keyword-based flagging, manual review of shares and volunteer shift management. This backend will be critical for scaling without compromising safety or recovery alignment
- **Longitudinal efficacy trial:** Design a randomized trial comparing *hi ed* + ABA meetings versus ABA meetings alone over 3–6 months. Outcome metrics could include symptom improvement, attendance rates, help-seeking behaviours and user retention.
- **Generalisation to other fellowships:** The *hi ed* model could be adapted for other 12-step communities, such as Narcotics Anonymous or Alcoholics Anonymous. Maintaining fellowship-specific language while replicating the ritual and peer structures would allow broader impact with minimal rework.

### **8 Project Management**

### 8.1 Project Timeline

A phased work plan guided project delivery from project scoping through to report delivery. Key milestones were mapped in a Gantt chart (see Appendix X), ensuring research design phases were time-blocked appropriately. The time-blocking approach was implemented to balance creativity with accountability and reduced scope creep across the process. The initial plan had to be reviewed due to unexpected circumstances during term 2. Thus, the project timeline had to be adapted and condensed to fit the remaining time.

### 8.2 Risk Management

Anticipating risks was central to delivering a sensitive intervention in a compressed timeline. The key risks, their likelihood and impact, and mitigation strategies were assessed (see Table 8). The mitigation strategies ensured that delays or technical blockers did not derail progress.

Table 8: Key Risks and Mitigation Strategies

Risk	Likelihood	Impact	Mitigation Strategy
Harmful design assumptions (e.g. inadvertently triggering flows)	Medium	High	Early co-design with ABA members, implement trauma-informed design principles, test key screens with mental health professionals before rollout
Under-recruitment or biased sample in user research	High	Medium	Use snowball sampling to reach beyond active ABA members, combine outreach approaches to increase diversity of perspectives
Emotional distress during interviews	Medium	High	Adopt interview safeguarding protocol (reminders of voluntary nature, emotional check-ins, ability to pause/stop), include resource list in consent email and post-interview follow-up.
Over-scope of features given prototype constraints	Medium	High	Focus on core flows / developing an MVP version
Inadequate treatment of crisis-related content	Low	High	Prominent inclusion of disclaimers and helplines, scenario test the crisis flow with clinicians to assess clarity, usability, and emotional tone
Evaluation validity undermined by static prototype	High	Medium	Conduct scenario-based walkthroughs to simulate live interaction, prompt participant feedback on process, not just visuals

#### 8.3 Stakeholder Engagement

Given the complexity and sensitivity of the domain, stakeholder engagement was treated as an ongoing, relational process. A three-tier model of stakeholders was adopted:

- Primary Stakeholders: Recovering individuals, the end-users whose needs and lived experience shaped the solution
- Secondary Stakeholders: Clinicians who offered practical and ethical guidance
- Tertiary Stakeholders: University supervisors who provided research feedback and accountability

Engagement methods were tailored to each group's role. Recovering individuals participated in interviews and validation sessions to guide and assess core functionality. Communications were sent well in advance, with options to reschedule or withdraw at any time. Follow-ups were handled gently to ensure emotional safety. Clinicians were involved in user research, co-design sessions and expert validation. The academic supervisor provided ongoing guidance through regular review meetings. The cadence of communication fostered trust, helped avoid ethical missteps, and allowed rapid integration of stakeholder insights into design decisions.

### 8.4 Resource Management

Resource management focused on maintaining clarity, version control and ethical sensitivity throughout the design process:

- Design Journal: A design journal was maintained to document design decisions, key feedback insights, and changes over time. This provided a structured log of the project's evolution
- Figma file management: Figma screens were thoroughly labelled for fast iteration and stakeholder walkthroughs
- Interview documentation: In line with ethical best practices for working with individuals
  in recovery, interviews were not audio-recorded or transcribed. Instead, observational
  notes were taken during and immediately after each session to capture key themes
  while respecting participants' privacy and comfort.
- Validation responses: Expert feedback forms, heuristic evaluation matrices, and postscenario questionnaires were anonymised for analysis. Aggregated insights were synthesised to informing iterative refinements.

#### 9 Reflection

### 9.1 Professional & Personal Development

This project was a defining step in my development as a designer committed to human-centred digital health tools. Professionally, I was able to apply and expand my existing strengths in UX/UI design and user research. I gained fluency in rapid ideation workflows, wireframing and Figma prototyping. Personally, I had the opportunity to work in a space that resonates deeply with my lived experience and long-standing interest in mental health.

A key growth area was designing for vulnerable populations. I became more attuned to the emotional dynamics of interviews, sharpening my active listening and synthesis skills. Navigating an emotionally charged topic taught me to build in extra time to take care of both the stakeholders and my own emotional response to the work. I refined my ability to adapt communication styles across different stakeholders, from deeply empathetic conversations with recovering individuals, to evidence-based dialogue with clinicians. I learned how to balance user desires, clinical safety and technically feasibility.

### 9.2 Benchmarking & Standards

Throughout the project, I referenced best practices from existing digital recovery platforms, including 7 Cups, Monument, Alike Health, and Together all. These platforms showcased how anonymity, safety and empathy can be upheld in digital spaces.

Compared to these, *hi* ed held a unique position by aligning with ABA. By incorporating meeting-style rituals like daily shares, the design created instant familiarity and trust. A low cognitive load interface with limited features mirrored the clarity and focus of 12-step spaces, contrasting with often overwhelming mental health apps.

However, benchmarks also revealed key areas where *hi ed* remains incomplete. A lack of implemented moderation infrastructure means it does not yet meet the operational or safeguarding standards required for real-world use. Furthermore, clinical oversight and integration are not yet formalised, unlike platforms that involve licensed therapists.

### 9.3 Challenges & Learning Opportunities

One major challenge was working with a static prototype. While this allowed me to move quickly through ideation and visual design, it also limited my ability to test core functionality. The absence of real-time interaction meant stakeholder validation relied on walkthroughs, relying on me clarify the flows shown in Figma.

Engaging with recovering individuals was another area of learning. I had to build trust quickly, create a psychologically safe space, and remain flexible to participants' availability and emotional needs. This required moving toward more open, responsive conversations, something that is necessary for any future work in sensitive domains.

Additionally, scoping the project tightly and prioritising the minimum viable product helped me manage feature creep and stay aligned with what was feasible. This experience taught me that restraint is a design skill, especially in mental health contexts where safety, clarity and user energy levels are paramount.

#### 9.4 Future Goals & Growth

This project has reinforced my long-term ambition to design human-centred solutions. In the long term, I hope to design tools like *hi ed* that support people's agency rather than trying to fix or pathologise them. *hi ed* was an important first step in understanding how designing for discretion can be as impactful as engagement-maximisation approaches. However, the project has illuminated broader gaps and opportunities in my professional toolkit. Moving forward, I'm eager to deepen my capabilities across three key areas:

- Evidence-based design: I want to build stronger fluency in translating research findings
  into actionable design criteria. This includes learning to work more rigorously with
  validated tools and collaborating closely with experts to align product decisions with
  real-world outcomes. My goal is to move beyond "informed intuition" toward designs
  that are both empathetic and empirically grounded.
- Scalable systems thinking: I have developed an interest in how digital tools not only serve individuals but also shape communities. I want to improve my ability to design for scale without losing nuance. This involves gaining more exposure to backend architectures, service blueprints and policy implications.
- Creative leadership & interdisciplinary practice: I thrive in collaborative, crossdisciplinary environments, and I'd like to further develop leadership skills that help me effectively navigate these spaces. This includes guiding design processes, communicating ideas across technical and non-technical teams and collaborating with others.

Beyond professional skills, this project reminded me of the importance of humility in creative work. Designing with and for people in vulnerable moments demands not only competence but care. I aim to carry this mindset forward, treating every project as a chance to design responsibly and stay attuned to the human stories behind the interface.

#### 10 Conclusion

This project aimed to explore how digital design could meaningfully extend the peer support model of Anorexics and Bulimics Anonymous into an online context. Specifically, how the effective intervention's spirit of anonymity, daily sharing and mutual aid could be maintained while addressing gaps in accessibility and crisis support. The result is *hi ed*, an app that reimagines what safe, low-barrier digital support might look like for individuals navigating eating disorder recovery. The concept is supported in user, while still embodying the powerful ABA ethos. The prototype was created and validated through expert co-design and a multifaceted validation approach with key stakeholders. Crucially, the project output acts as a digital template that can be adapted for other 12-step fellowships or peer-based support groups.

This project makes three key contributions to the field of health-centred digital design:

- It introduces a novel app concept that prioritises peer-to-peer support, anonymity, and crisis response
- It demonstrates early-stage viability through a structured evaluation approach involving clinicians, recovering individuals, and moderators,
- It offers a replicable requirements specification and design approach that could inform future work in similarly sensitive, stigma-laden domains.

The next phase of development is clear. Building a functional MVP using tools like React Native and Firebase will enable real-time peer matching and asynchronous sharing. A mixed-methods pilot study with 30–50 participants will assess preliminary impact on self-reported ED symptoms (e.g., via EDE-Q), feelings of isolation, and help-seeking behaviour. As the tool matures, back-end moderation and safety infrastructure will be developed to ensure scalability and safety. Feature expansions may include sponsor-matching systems, integrated referrals to clinicians and supportive tools such as mood tracking or mindfulness prompts.

Ultimately, this project demonstrates how digital tools can amplify traditionally recovery interventions while maintaining a human touch. By combining lived experience with thoughtful design, *hi* ed offers a blueprint for empathetic, accessible and effective digital interventions.

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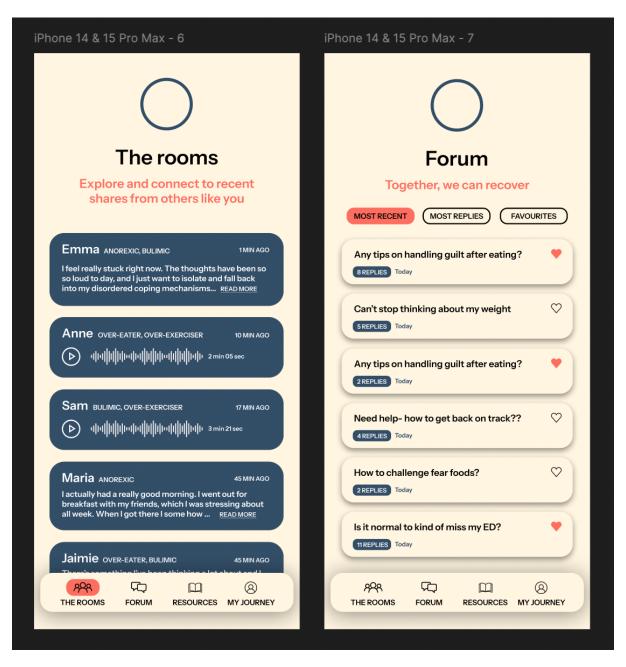
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### 12 Appendices

### Appendix A: Early prototype samples



### Appendix B: Figma Link

Link to Figma file

# Appendix C: Gantt Chart

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Reflection	Critical Reflection																															
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